Final Decision Notice
and
Finding of No Significant Impact

Mission Restoration Project
and Forest Plan Amendment #59

U.S.D.A. Forest Service
Okanogan-Wenatchee National Forest
Methow Valley Ranger District
Okanogan County, Washington

Introduction and Background Information

Based on the analysis presented in the Mission Restoration Project Final Environmental Assessment, I have decided to select a modified version of Alternative 2. The Proposed Action as modified is hereby incorporated by reference.

Project Location

The 50,200 acre Mission Restoration Project is principally located in the Libby Creek and Buttermilk Creek drainages including Smith Canyon, Elderberry Canyon, Ben Canyon, Chicamun Canyon, Mission Creek, Black Pine Creek, Yoyo Creek, Nickel Canyon, and Hornet Draw. The project area also includes a small portion of the Twisp River Watershed that was added at the request of adjacent private land owners to reduce wildfire hazards on National Forest System (NFS) lands adjacent to the private lands. The project area is located west of Highway 153, between Carlton and Twisp, Washington. The project area includes portions of Township 32 North, Ranges 19, 20, 21, and 22 East; and Township 33 North, Range 20 East, W.M. Landmark locations include Lookout Mountain, Mission Peak, Buttermilk Butte, and Black Pine Lake.

The primary access routes into the project area include State Highway 153; Okanogan County Roads 1049, 1051, 1090, 1091, and 9114; and NFS roads 4300000, 4340000, 4342100, 4342200, and 4342300.

Background

The intent of this project is to implement the Forest Restoration Strategy (2012) by treating areas in need of vegetation and aquatic restoration actions (based on landscape and stand-level restoration ecology principles). Additional actions include wildfire hazard reduction and transportation system management. All actions were designed to comply with the Decision Notice for the Final EIS for the Okanogan National Forest Land and Resource Management Plan (1989), as amended by the Northwest Forest Plan and the Aquatic Conservation Strategy (1994). Field review, professional expertise, public input, and use of several analysis methods were used by the Interdisciplinary Team members to assess current conditions, determine needed changes, and evaluate effects of proposed treatments. Since a recent decision had already been made regarding allotment management and monitoring controls are in place to protect resource values, range management was considered outside the scope of this analysis and decision.

One analysis tool used by the Interdisciplinary Team (IDT) members was the Ecosystem Management Decision Support (EMDS) modeling tool. A landscape evaluation process using this tool, established the context of

restoration activities within the broader landscape and set priorities for where restoration will occur. EMDS visually represented, by stand, the relative degree of departure of the vegetation conditions, the susceptibility to uncharacteristic wildfire risk, and the ability to support selected focal wildlife species.

To assess current road conditions and their potential impacts on watershed and aquatic habitat conditions, a GIS-based model called NetMap was used. This included a digital terrain database and landscape attributes relating to erosion hazards to evaluate and prioritize roads that pose varying levels of risk to hydrologic and aquatic resources. In addition, a road assessment procedure, Analysis and Proposal Development for Whole Watershed Scale Projects (2015), was used to identify potential road-stream impacts and roads, or groups of roads, to consider for removal or hydrologically close to benefit natural watershed processes. This procedure was originally developed for the Draft Okanogan-Wenatchee National Forest Procedures for Watershed and Aquatic Resource Assessment.

The Mission Restoration Project Final Environmental Assessment (EA) documents a No Action Alternative and two Action Alternatives. The action alternatives have identical vegetation management and fuels treatment actions. They would thin trees (both commercial and pre-commercial size), use prescribed fire to reduce treatment slash and use landscape scale prescribed underburning to reduce wildfire risk. In addition, both action alternatives make adjustments to the road system, replace undersized culverts on non-fish-bearing streams, replace culverts where fish barriers exist on fish-bearing-streams, enhance and protect areas viable for future beaver utilization, sub-soil areas of previously-compacted soil, apply rock to road surfaces at stream crossings, and fell trees to improve riparian habitat function where levels of coarse woody debris (CWD) are deficient. Alternative 2 would replace the bridge across the West Fork of Buttermilk Creek to restore motorized access when adequate funding is available to do this. An analysis of the proposal was conducted in accordance with the National Environmental Policy Act (NEPA) and the implementing regulations of 40 CFR 1508.

Prior to initiation of the Mission Restoration NEPA analysis, the North Central Washington Forest Health Collaborative (NCWFHC) partnered with the Methow Valley Ranger District during the early assessment phase. During this period, discussions were held with Collaborative members regarding how they could help support the mutual goal of increasing the pace and scale of forest restoration across the landscape. The District identified needs related to field data collection, synthesis of EMDS data outputs, and providing public forums to discuss the science behind landscape analysis and restoration. The Collaborative funded an external consultant, Dr. Derek Churchill, to develop and present draft landscape prescriptions and treatment areas from initial EMDS modeling results. Many of the potential commercial harvest treatment areas were not carried into the Proposed Action for various reasons including economic viability and the need for substantial new road construction. The Collaborative also provided funding and personnel for stand data verification (completed under the supervision of the District Silviculturist) and for a report on aquatic conditions, which took existing information and consolidated it into one report. Volunteers from the Collaborative also helped gather data on existing roads, such as location of culverts, road damage, and user-created roads. All of this work was reviewed by the Interdisciplinary Team during the initial assessment of the project area and combined with District data and expertise to develop a desired future condition. This in turn led to the development of the Purpose and Need for Action and a preliminary Action Alternative for scoping.

Based on public input, the IDT modified the preliminary Action Alternative by adding approximately 125 acres of additional thinning treatments in the Wildland/Urban Interface (WUI) adjacent to private land. It also included over 280 acres of underburning treatments in shrub/steppe habitat. As further information became available through field reconnaissance, data collection, and public comments, a Proposed Action was developed, which formed the basis of Alternative 2. Prescribed landscape burn units utilize existing roads and natural terrain features such as ridgelines to aid in fire management.

Consequently, about 2 acres of fuels treatment and 900 feet of hand fireline along a ridge are included within the Sawtooth Inventoried Roadless Area under both Alternatives 2 and 3.

Alternative 3 was developed in response to comments received during the scoping period that called for increasing the scale of aquatic restoration. In addition to the treatments proposed in Alternative 2, this alternative included about 22 ½ miles of additional road closures and decommissioning, four hardened stream fords, and rock armoring of 27 additional stream crossings prior to haul. The bridge across the West Fork of Buttermilk Creek would not be replaced to restore motorized access to the Scaffold Ridge trailhead and roaded fire access.

Based on the analysis, dense forest stands within the project area have increased the probability for insect and disease outbreaks and reduced the ability for firefighters to successfully suppress wildfire. As a result, the Sawtooth Inventoried Roadless Area, the Lake Chelan – Sawtooth Wilderness Area, the unroaded area around Lookout Mountain, nearby private lands, lands managed by Washington State, other Federal lands, and other NFS lands are at a higher risk for uncharacteristically severe wildfire behavior.

Proposed commercial thinning and slash treatments is planned to be completed in two Stewardship contracts. The first contract of commercial thinning treatments with associated fuels treatments will remove trees from the Libby Creek drainage, about 6 MMBF. Much of this contract will likely be winter harvested. The second contract will remove trees from the Buttermilk Creek drainage, about 2 MMBF. Most of the units in this second contract could be harvested in either summer or winter. Most harvest activities will use conventional tractor yarding systems, but up to 116 acres of cable yarding systems are proposed.

It is important to remember that restoration takes time and that objectives might not be fully met immediately after the initial treatments. For example, forested ecosystems that are resilient to disturbance often include large, fire tolerant trees, which take many years to develop. Restoration activities are planned to set landscapes on successional trajectories that lead to desired future conditions. Additional underburning of treated areas is planned to take place about 15 years after the initial fuels treatments.

Decision & Rationale for the Decision

This Decision Notice (DN) and FONSI documents my decision for the Mission Restoration Project as well as the rationale for this decision. Of the three alternatives considered in detail, I have selected a modified version of Alternative 2. The Proposed Action, including all design features, best management practices, mitigation and monitoring measures (listed in Appendix D, of the EA, pages 374 - 407), road management adjustments (as detailed in Appendix B of the EA, pages 359 - 370), and as described below and in the Mission Restoration Project Final Environmental Assessment (Mission EA), was selected for implementation after consideration of applicable laws, Forest Plan consistency, environmental effects, information in the Mission project file, and public comments received during the scoping, comment, and objection periods. My conclusion is based on a review of the record that shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgement of incomplete or unavailable information, scientific uncertainty, and risk.

The modified version of Alternative 2 includes Alternative 2 as described in the Environmental Assessment (EA) on pages 21-24, in Appendix A (pgs. 337 – 361), and in Section 2.5 on EA pages 30 – 40. Modifications to Alternative 2 for this decision include decommissioning more roads to increase the scale of aquatic restoration, allowing the use of lignin for dust abatement on select NFS roads, and eliminating maintenance burning 10 to 15 years after the initial treatment (described under "Modified Alternative 2" below).

My decision meets the requirements of the National Environmental Policy Act (NEPA) and follows management direction, except where amended for deer winter range by this decision. The rationale for my decision is further discussed below and considers public comments and issues (EA pages 14–18) along with management objectives associated with:

1) Vegetation and Fuels Treatments (EA page-22) and in Appendix A (pgs. 337 – 361);
2) Transportation Management (EA pages 23-24) and in Appendix B (pgs. 359 - 370);
3) Restoration Treatments (EA page 22); and
4) One non-significant project-specific Forest Plan amendment for deer winter range (EA pages 24-29), throughout Chapter 3 as part of the Resource Consistency statement for each appropriate resource including Sections 3.3.5, 3.4.5. 3.5.5, 3.6.5, etc., and in Section 3.16, Substantive Provisions Affected by Proposed Amendment (EA pages 328-332).

My decision for selecting the modified version of Alternative 2 involved balancing several considerations, including which alternative or combination of treatments best supports the purpose and need for action for the present and future generations, and the project objectives described in the Mission EA of protecting the wildland urban interface (WUI) from wildfire while at the same time maintaining healthy watersheds and effective wildlife habitat; protecting residual vegetation; providing for public health and safety; maintaining roads adequate for resource and recreation management needs for the present and for future generations while minimizing effects to aquatic habitats; minimizing adverse impacts to the grazing permittee; and reducing the risk of increased invasive species populations.

A Travel Analysis Procedure (TAP) was completed for the Mission Restoration proposal in accordance with Forest Service Manual (FSM) 7000, Chapter 7712. An interdisciplinary process was used to complete an analysis of all the roads, both authorized (part of NFS road system) and unauthorized (includes roads that were constructed for past management proposals but were not added to, or were previously taken off the National Forest System) in the project area and assessing the needs, assets, and liability of each road. The Travel Analysis Procedure documentation can be found in the analysis files, and is summarized in the Environmental Assessment on EA pages 23 – 24 and in Appendix B (pgs. 359 - 370).

Travel analysis recommended decommissioning about 33 miles of NFS roads; adopting 16 miles of roads that are currently non-system roads during treatment activities; rehabilitating 12.1 miles of non-system roads found excess to the needs for future administrative or public access; replacing 8 culverts where fish barriers exist on fish-bearing streams and replacing 15 culverts where existing culverts are undersized in non-fish-bearing streams, applying rock to the road surface at stream crossings on up to 33 stream crossings (6 prior to haul and 27 when funding is available) replacing the West Fork Buttermilk Creek bridge when funding is available; and constructing an estimated 1.2 miles of temporary roads.

Pre-haul road maintenance and/or reconstruction activities are proposed for approximately 56 miles of road and will be completed prior to use of the roads for harvest activities. Road reconstruction activities will include the restoration of drainage features, slope stabilization, applying spot surfacing, and/or resurfacing with crushed aggregate, and pavement patching. In addition to road reconstruction work, other roads that will be used for timber haul will require pre-haul road maintenance, primarily blading and shaping of the roadbed and ditch, and brush removal.

All identified resource concerns have been addressed, consequently the Environmental Assessment is consistent with 36 CFR 220.7.

Decision Rationale

Alternative 3 best meets the aquatic and hydrologic purpose and need in comparison to the No Action Alternative and Alternative 2 because it would decommission more roads. However, I find that the Proposed

Action (modified Alternative 2) will better meet the overall purpose and needs of this project (described below and further described in the EA on pages 4 – 6) while striking a balance with other resource considerations, especially with the modification that will result in more decommissioned roads.

The ***purpose*** for action is to:

- Restore and maintain aquatic and hydrologic processes impacted by management, improve habitat for Threatened and Endangered aquatic species, and increase watershed resiliency to existing and anticipated disturbances;
- Restore soil-related processes and functions where past management practices have created detrimental effects;
- Maintain and restore forest vegetation characteristics to within estimated historical and future ranges of variability to improve forest resiliency to insect, disease, and wildfire events;
- Develop, maintain, and/or enhance habitat for federally listed and other wildlife species and reduce the risk of large-scale habitat loss to fires by increasing resilience of habitats to wildfire;
- Maintain and enhance existing and potential Region 6 Sensitive Survey and Mange plant populations and unique plant habitats within meadows and aspen stands;
- Modify the structure, composition, and patterns of forest stands within and adjacent to the wildland/urban interface (WUI) as defined by the 2013 Okanogan Community Wildfire Protection Plan, enabling the use of more direct firefighting strategies to protect life and personal property; and
- Provide the road system needed for safe and efficient travel, administration, public use, and protection of natural resources on NFS lands, now and in the future.

There is a ***need*** for action because:

- Several roads currently add sediment, increase the drainage network, block fish migration, and reduce woody debris recruitment in the project area. Large wood, spawning habitat, and/or pool habitat are currently below desired conditions for ESA listed fish species and in small headwater streams within the project area. In comparison to the desired condition, some drier drainages have stands of conifers that shade out hardwoods and reduce the amount of water available for stream flow. These conditions also make some riparian areas more susceptible to uncharacteristic harmful effects caused by wildfires. Road construction, conifer encroachment, and past vegetation management practices have reduced water flow and wetland habitat.
- Soil compaction in the project area limits native plant growth, reduces soil biological activity and water infiltration, limits soil productivity, and reduces the resiliency of plant communities to climatic and biological changes over time.
- Past management practices, including fire suppression, changed forest vegetation structure, overstory and understory species composition, and spatial patterns in comparison to historical conditions. These changes include a large increase of densely-stocked stands with multiple canopy layers or closed canopies with a high proportion of young shade-tolerant species (including Douglas-fir and subalpine fir in the dry forest type and subalpine fir in the moist forest type). These densely stocked stands tend to be arranged in a more continuous or unbroken pattern across the project area compared to historical conditions. Dry and moist forest stands with lower tree stocking levels and open canopy closure have decreased in total area and patch (stand) size compared to historic levels. Dry and moist forest stands comprised primarily of large trees also have decreased in total area and patch size compared to historic levels. Portions of the project area are susceptible to dwarf mistletoe infection, defoliating insects, and bark beetle attacks due to vegetation composition and structure changes from historical conditions. The risk of crown fire initiation and spread and associated fire effects are greater than historical conditions, particularly in the

Buttermilk watershed, due to increased tree density and development of forest stands with multiple and closed canopy layers across the landscape. Dry and moist forest vegetation in the project area is susceptible to increased frequency and severity of natural disturbances (including insects, disease, and fire) associated with a warmer, drier climate.

- Northern spotted owl habitat is limited and scattered in the project area compared to historical conditions, and habitat connectivity to suitable habitat outside of the project area is fragmented from past management actions. Meadow habitat around Mission Pond and Black Pine Meadows is shrinking due to conifer encroachment. The amount of large-tree habitat that provides nesting and foraging opportunities for northern goshawk, white-headed woodpecker, western gray squirrels, and other species in the project area is below desirable levels. Existing early-successional conifer and deciduous stands is under-represented based on historical conditions, providing less quality habitat for lynx and their prey.
- Conifer encroachment in the project area has decreased nutrient, water, and sunlight availability to moonworts, bladderworts, and aspen.
- Current fuel conditions near and adjacent to private lands support flame lengths that increase the likelihood of crown fire initiation, placing life and property at risk and limiting direct suppression opportunities. Current fuel loading and stand structure along portions of Forest Roads 4300 and 4340 may create high-intensity fire conditions that limit the usefulness of these roads as firelines or evacuation/access routes during wildfires.
- Existing undersized culverts present risk for road failure and sediment delivery to streams. Road surfaces have poor drainage and have lost durable road surface which contributes to the potential for road failure and increased maintenance needs. Several roads do not meet current safety or design standards or are now surplus to management needs because of changes in logging system practices or management objectives. The existing road network costs more to maintain than is available in road maintenance funding.

Modified Alternative 2 (Selected Alternative)

Alternative 2 is described in the Environmental Assessment on EA pages 21-24, in Appendix A (pgs. 337 – 361), and in Section 2.5 on EA pages 30 – 40. Treatments designed to move the Mission Restoration Project area toward the desired condition and address the purpose and need for action include:

- Thinning, both commercial and pre-commercial;
- Prescribed burning, both slash treatment of thinnings and landscape underburn treatments;
- Riparian habitat improvement and stream bank stabilization by restoring deficient levels of coarse woody debris in about 8.3 miles of fish-bearing stream channels;
- Adopting non-system roads needed for future forest management, changing road maintenance levels to meet current access needs, rehabilitating non-system roads, and closing and decommissioning NFS roads that are excess to current recreation and administrative needs;
- Replacing 8 culverts on fish-bearing streams where fish barriers exist;
- Apply rock to road surfaces at up to 33 stream crossings;
- Replace the bridge across West Fork Buttermilk Creek to restore motorized access when funding is available;
- Enhance and protect 8 sites viable for future beaver utilization;
- Sub-soil up to 468 acres of areas of previously-compacted soil; and
- Replacing undersized culverts at 15 non fish-bearing-stream crossings where existing culverts are undersized to accommodate a 100-year storm event and associated debris.

Modifications to Alternative 2 since the draft Decision Notice include:

- Two additional roads will be decommissioned in response to concerns about adding unauthorized roads to the National Forest Road system (roads 4300150-1.22L-1 and 4300057-0.2-1);
- Non-petroleum-based lignin may be used as a dust abatement measure on portions of NFS roads that are more than 100 feet away from fish-bearing streams. According to the Forest-wide programmatic Biological Assessment, using lignin within 25 feet of fish-bearing streams would result in a determination of "May Affect, Not Likely to Adversely Affect". By using a 100-foot buffer around these features, using this material will result in a "No Effect" determination. No other chemicals will be used for road maintenance. In addition, all lignin will be stored, loaded, mixed outside of any Riparian Reserve. Any unused lignin will be disposed of at designated locations outside of the Riparian Reserves. Finally, a spill plan will be developed and on hand during application.
- Follow-up maintenance burning 10-15 years after the initial prescribed fire treatment will not be included in this decision to provide for more thorough assessment of the effects of this treatment in the future.

Acreages and details about these actions are in Chapter 2 of the Environmental Assessment (pgs. 21 – 40); Appendix A, Proposed Thinning and Prescribed Fire Treatments, (pgs. 337 – 361); Appendix B, Transportation Definitions and Proposed Changes, (pgs. 359 - 370); and, Appendix C, Proposed Soil, Road, Stream, and Beaver Habitat Treatments (pgs. 371-373). Design Features, Best Management Practices, Mitigation and Monitoring measures are in Appendix D (pgs. 374 - 407. Maps are in Appendix F, Project Maps (pgs. 434-447).

Other Alternatives Considered

Alternative 1: No Action

Under Alternative 1, no thinning, prescribed burning, transportation system changes, or stream restoration will take place. Current activities permitted by previous Forest decisions, such as routine road maintenance, recreation use, firewood gathering, noxious weed prevention and control, and use by the range permittee will continue. Alternative 1 was not selected because it does not meet the Purpose and Needs identified for landscape scale restoration. It also does not address known road related impacts to aquatic resources nor does it address increased hazardous fuels conditions within the WUI.

Alternative 3

Alternative 3 was developed in response to comments received during the scoping period that called for increasing the scale of aquatic restoration. In addition to the treatments proposed in Alternative 2, this alternative included about 22 ½ miles of additional road closures and decommissioning, four hardened stream fords, and rock armoring of 27 additional stream crossings prior to haul. The bridge across the West Fork of Buttermilk would not be replaced. Alternative 3 was not selected because it would not provide the road system needed for safe and efficient travel, administration, public use, and protection of natural resources on NFS lands, now and in the future. Compared to Alternative 2, the additional road closures and decommissioning in Alternative 3 would reduce access on 17% more acres and triple the miles of roads decommissioned, many of these miles being within Designated WUI. In addition, the recreational access to the Scaffold Ridge/Oval Peak trail would be reduced, eliminating wheeled motorized access to the trailhead. Locating and gathering cattle would become more difficult. This would be considered a long-term, moderate to major, adverse impact to grazing. Decommissioning or closing these additional roads would also result in higher future vegetation treatment costs, longer fire suppression response times and an increase in safety hazards for personnel working in these areas, resulting in an adverse, long-term, moderate impacts to access for vegetation and fire management. The

impact to recreational access to Scaffold Ridge/Oval Peak trail would be long-term, adverse, and moderate.

Alternatives Considered but Eliminated from Detailed Study

Five alternatives were considered but eliminated from detailed study (EA pages 19 -21). They were:

Pacific Biodiversity Institute (PBI) Alternative: PBI staff proposed an alternative calling for limiting the amount and pace of restoration treatments; increasing the amount of thinning and/or prescribed fire in WUI and in the shrub/steppe environment in Libby Creek. If the amount and pace of restoration were further limited, there would be minimal change at the landscape level and would therefore not meet landscape objectives. The IDT did modify thinning and prescribed fire treatments proposed in Alternatives 2 and 3 by adding 125 acres of additional treatments in the WUI. Due to recent large and severe wildfires affecting shrub/steppe near the project area, it was determined that additional burning in the shrub/steppe environment should be delayed until these areas had recovered.

Do Not Close Additional Roads; Adopt all Unauthorized Roads into the National Forest System: This alternative was dropped from further consideration because it does not meet Purpose and Need (P&N) #1 or #7. The ability to meet the need to reduce maintenance costs and impacts of roads on water quality, flow regime, noxious weed spread, and wildlife habitat is predicated on considering and prioritizing each road separately for its inclusion in or removal from the road network.

No Commercial Timber Harvest; Non-commercial Thinning and Prescribed Fire Only: This alternative would not meet the Purposes and Needs (P&N) for Vegetation Composition and Structure (P&N #3) for changing vegetation structure, overstory and understory species composition, and spatial patterns in comparison to historical conditions and improve forest resiliency to insect, disease, and wildfire events. It would not meet the Purpose and Need for Wildlife Habitat (P&N #4) for developing, maintaining, and/or enhancing habitat for federally listed and other wildlife species, increasing meadow habitat, increasing large tree habitat, and reducing the risk of large-scale habitat loss to fires by increasing resilience of habitats to wildfire. It would not meet the Purpose and Need for Sensitive Plants and Unique Habitats (P&N #5) since it would not decrease conifer encroachment in hardwood stands in the project area causing decreased nutrient, water, and sunlight availability to moonworts, bladderworts, and aspen.

No Forest Plan Amendments Required: Public comments requested that the team provide an action alternative that did not require any project-specific, non-significant Forest Plan amendments for implementation. The Interdisciplinary Team considered this alternative but decided to not fully develop it because many of the objectives of the project would be compromised to the point of being not implementable or being ineffective in order to attain complete compliance with the Forest Plan. Only one amendment remains for the project. The others were determined unnecessary because the mitigations needed to protect sensitive soils by requiring winter operations could still be implemented without the amendments. Without this amendment in deer winter range, P&N #1, #3, #4, #5, and #6 would only be partially met.

Harvest on steeper slopes: A fifth alternative was consider but eliminated from detailed study between the revised preliminary EA and the final EA. Current design features confine tractor skidder/forwarder operations to slopes that are 35%, or less, except pitches of 150 feet, or less on steeper ground. This alternative would have allowed the use of conventional tractor skidder/forwarder yarding systems on steeper slopes, up to 40 or 45%. Based on field review of recent harvest units on the Methow Valley District, discussions with other Forests who allow conventional tractor yarding on steeper slopes, the presence of ash-capped soils in the project area, and the expertise of the Project Soil Scientist, it was determined that this alternative was likely unable to meet Forest and Regional Soil Guidelines.

Consultation

Government-to-government consultation was conducted with the Confederated Tribes of the Colville Reservation and the Confederated Tribes and Bands of the Yakama Nation in accordance with the NHPA, NEPA, and Executive Order 13175 "Consultation and Coordination with Indian Tribal Governments". Government-to-Government consultation letters were sent to both governments on April 20, 2016. No comments or concerns were received from the Yakama Nation. The only comment or concern that has been received from the Colville Tribe, to date, was the question of why a separate Heritage Resource Section was not included in Chapter 3. Since adverse effects will be avoided through project design features requiring the avoidance of eligible and unevaluated cultural resources, an abbreviation Heritage Resource Section (3.15.11) was included in Section 3.15, Other Required Disclosures. Documentation of compliance with the NHPA (in project files) was prepared in accordance with the Forest's 1997 Section 106 Programmatic Agreement with the State Historic Preservation Office regarding cultural resource management on national forests in the State of Washington.

Via Letter dated September 29, 2016, the State Historic Preservation Officer (SHPO) concurred with the Forest Heritage Program Manager determination of "No Historic Properties Affected" for heritage resources (SHPO reference 2016-09-06957-USFS-OK-WEN).

A consultation letter was sent to the Okanogan County Commissioners on April 20, 2016, and a briefing with the County Commissioners took place on July 13, 2016. The Commissioners raised concerns related to maintaining road access, continuing range management, promoting resilience to fire and more options for direct attack during suppression, and increasing timber management.

Consultation on the effects of proposed treatments on federally threatened and endangered fish and wildlife species (ESA consultation) was completed using two pathways. With agreement by U.S. Fish & Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration - National Marine Fisheries Service (NOAA-NMFS), several treatments were determined to be consistent with aquatic restoration category "Road and Trail Erosion Control and Decommissioning" in the 2013 Reinitiation of Aquatic Restoration Activities in States of Oregon and Washington programmatic Biological Opinions (ARBO II; USDC-NMFS 2013). All other treatments that were not consistent with ARBO II were covered through consultation with the USFWS and NOAA-NMFS ("non-ARBO II Consultation"). The consultation methods used for treatments are listed in Table 1; depending on location, some treatments were covered under both types of consultation. NOAA-NMFS staff issued a letter of concurrence on April 17, 2018 (NMFS reference #WCR-2018-9324). USFWS staff issued a letter of concurrence on April 30, 2018 (USFWS reference #01EWFW00-2018-I-0936). The resulting determinations for treatments covered under ARBO II and non-ARBO II consultation are described below under Findings of No Significant Impact.

Table 1: ESA Consultation Coverage for Mission Restoration Project treatments

ARBO II Programmatic BO	Non-ARBO II Consultation
Non-Commercial Thinning prescriptions: TSI, Wetland Thin, Ladder Fuel Reduction, Post and Pole, and Conifer Girdling for Aspen Restoration	Soil restoration
Commercial Thinning prescriptions: Aspen Release, Moist Forest, Dry Forest Restoration, Dry Forest Restoration-Dwarf Mistletoe, and Variable Retention Regeneration	Culvert replacement

Tree Planting	Beaver habitat enhancement
Prescribed Fire: Hand-piling, machine-piling, and pile burning; landing pile burning; upland underburning outside of riparian areas	Prescribed fire: riparian underburning
Road Maintenance/Reconstruction: surface blading, ditch cleaning, and road surface reconstruction	West Fork Buttermilk Cr bridge replacement
Log Hauling	Coarse Woody Debris enhancement
Transportation: changing road maintenance levels (closing, opening, changing to administrative road, changing to stock trail); building temporary roads; adding unauthorized roads; road decommissioning on haul roads completed by timber sale purchaser	Transportation: rock armoring; changing road maintenance levels (closing, changing to administrative road, changing to stock trail, decommissioning on non-haul roads); drivable fords

Public Involvement & Scoping

The Methow Valley Ranger District sent a scoping letter to the public, interested agencies and organizations, and adjacent landowners on April 28, 2016 detailing proposed management activities on 50,200 acres of NFS lands in the Mission Restoration Project area. The letter included a request for comments and an invitation to participate in a public information meeting about the project on May 23, 2016. The comment deadline of May 31st was extended to June 10th to allow additional time for people to prepare comments after the Open House on May 23rd 2016.

A news release seeking comments on the Mission Restoration proposal was sent to the Forest's mailing list for public information contacts (newspapers and radio stations) on May 2, 2016. The news release invited the public to the open house on May 23rd and extended the Comment Period until June 10th.

A public information meeting was held on May 23, 2016 to answer public questions and to encourage community collaboration and gather input on the purpose and need for action and development of the proposed action along with potential alternatives.

A meeting was held on July 11, 2016 with the Pacific Biodiversity Institute (PBI) staff to discuss their proposed alternative. Much of the meeting provided clarification on the Proposed Action and resulted in modifying the project to increase treatments in the Wildland/Urban Interface and in shrub/steppe habitat.

A field trip to the project area was held in May 2016 with Dr. Amy Snover, director of the University of Washington's Climate Impacts Group. Dr. Snover's input included support for considering forecasted climate impacts when considering the desired future condition of the project area and recognition that proposed treatments are consistent with those recommended for improving forest resilience to a changing climate.

The proposed activities, including potential access routes and road closures were discussed with the range permittee.

The Preliminary Environmental Assessment (EA) for the project was available for public review and comment for 30 days beginning January 31, 2017. A public meeting was held February 8th in Twisp, Washington. A

second 30-day comment period was held starting March 2, 2017 on the Preliminary Environmental Assessment. The published emailed address erroneously showed spaces where there should have not been any for the comment database so a Correction Notice was published on March 5, 2017 in *The Wenatchee World*, the newspaper of record.

A news release seeking comments on the Mission Restoration Project Preliminary EA was sent to Forest's mailing list for public information contacts (newspapers and radio stations) on January 30, 2017. The news release invited the public to the open house on February 8th.

A Revised Preliminary Environmental Assessment for the project was available for public review and comment for 30 days beginning June 30, 2017. The proposal for the Mission Restoration Project includes a project-specific Forest Plan amendment to exempt the project from Standards and Guidelines related to the management of deer winter thermal cover. To meet public notification requirements of the amended 2012 Planning Rule at 36 CFR 219.16 related to Forest Plan amendments, a 30-day designated opportunity for the public to provide written comments was provided.

On March 15 2018, the Final Environmental Assessment and the draft Decision Notice and FONSI were made available for a 45-day objection period under 36 CFR 218, subpart A and B through a legal notice in *The Wenatchee World.*

Details about public involvement, including lists of individuals, organizations, and government entities who engaged in the Mission Restoration Project is in Chapter 1 of the Environmental Assessment (EA pages 12 - 14), in chapter 4 (EA pages 333-336), the project record, and the CARA database. One hundred eleven organizations and individuals expressed interest in the project during scoping or the comment periods. Comments and responses are available in the project record.

Forest Plan Amendments

I prepared this project specific amendment under the 2012 Planning Rule, which has different provisions than the 1982 Planning Rule under which the existing plan was developed. Although the existing plan is not changed, the exception that this amendment allows to the current plan's direction is a reduction in deer winter range cover to levels below Forest Plan Standards and Guidelines (S&G). The amendment applies this prescription to Management Areas (MA) 14 and 26 and must be evaluated based on the 2012 planning rule.

As explained below, this amendment complies with the procedural provisions of the 2012 Planning Rule and all the directly related resource requirements in sections 219.8 through 219.11 of the 2012 Planning Rule (36 CFR Part 219).

Compliance with 2012 Planning Rule's Procedural provisions

These procedural provisions as related to a project specific amendment are: using the best available scientific information to inform the planning process (§ 219.3), providing opportunities for public participation (§ 219.4), the plan amendment process (§ 219.13), and including specific information in a decision document (§ 219.14). This plan amendment has complied with these procedural provisions by:

Using the best scientific information to inform the planning process (§ 219.3):
The Mission Restoration Project EA used the best available science, which is summarized in EA Chapter 2 (EA pages 25-29) and is disclosed in more detail in EA Chapter 3 (EA pages 225-227). Also see reference

section in EA beginning on page 408 for references cited in our environmental analysis using the best available science.

Providing opportunities for public participation (§ 219.4) and providing public notice (§ 219.16):
Our public participation efforts are disclosed in Chapter one of the EA (pp. 13). The Forest Service has provided multiple venues and times for our interested parties to participate. The project scoping letter and initial preliminary EA listed several proposed forest plan amendments for this project. These amendments were not supported by the majority of commenters because they felt that the standards and guidelines within the Okanogan National Forest LMRP were placed there to protect important resources. At that time, very little new science was presented to support the mentioned amendments. Since that time, IDT members determined through field reconnaissance, aerial photos, modeling results, and clarification of Forest Plan Standards and Guidelines that several proposed amendments were unnecessary because proposed treatments will be consistent with the Standards and Guidelines those amendments would have temporarily altered, or the project could be implemented with reduced flexibility without those amendments. One remaining amendment is included in both of the action alternatives.

The plan amendment process (§ 219.13):
The responsible official determined that to meet the purpose and need of the project, that the project-specific amendment was needed to allow harvest treatments that would reduce cover 388 acres below standards and guidelines in the two management allocations. Public participation is described in the section, above. Interested and affected parties had the opportunity to comment during scoping and during three separate 30 day comment periods. These additional comment periods were due to concerns regarding the publication of the legal notice for the first comment period and for the public to provide comment on the analysis of the proposed amendment in relation to the substantive provisions identified in the 2012 Planning Rule.

Effective date (§ 219.17(a)
The plan amendment is effective on the date the project may be implemented in accordance with administrative review regulations at 36 CFR 218.

Objection opportunity (Subpart B):
The amendment is subject to the 36 CFR 218 objection process because the amendment only applies to this project. The predecisional review process for plans, amendments or plan revisions as defined in 219 Subpart B does not apply to this amendment because this amendment is subject to the administrative review process under 36 CFR 218.

Scope and scale of the amendment
I have determined the scope and scale of this amendment based on what is necessary for the project to meet its purpose and need. The purpose of the project with respect to wildlife habitat is to develop, maintain, and/or enhance habitat for federally listed and other wildlife species and reduce the risk of large-scale habitat loss to fires by increasing resilience of habitats to wildfire.

The purpose of the amendment is to create a more open forested landscape with a less continuous layer of shade tolerant species and begin landscape restoration toward historical and predicted future conditions with a corresponding reduction in the risk of uncharacteristic insect outbreaks and crown fire behavior and effects. The amendment reduces the total winter range cover requirement from 51 and 35 percent to 33 percent in winter range management areas MA14 and MA26 respectively, focusing on vegetation management on the 388 acres within the 50,200-acre Mission Restoration Project area.

Compliance with the Rule's Applicable Substantive Provisions

I have determined that the project amendment exception to the current plan's direction complies with the following specific substantive rule requirements contained in rule sections 219.8 through 219.11 (219.8–Sustainability, 219.9–Diversity of plant and animal communities, 219.10–Multiple Use, and 219.11–Timber Requirements based on NFMA) that are directly related to the purpose of the exception and that the amendment is not contrary to these requirements:

219.8 (a)(1)(iv) System drivers such as wildland fire, and climate change, and the ability of terrestrial and aquatic ecosystems in the plan area to adapt to change is related to the purpose of the amendment because reducing deer winter range cover on 388 acres is intended to affect how the project area responds to system drivers such as insects and wildland fire, as well as the ability of terrestrial and aquatic ecosystems to adapt to change;

219.8 (a)(1)(v) Wildland fires and opportunities to restore fire-adapted ecosystems is related to the purpose of the amendment because reducing deer winter range cover on 388 acres is intended to promote restoration of more historical fire behavior in dry forested areas that are primarily adapted to frequent, low-intensity fire. Thinning will also contribute to altering fire behavior in the Wildland Urban Interface.

219.8(a)(1)(vi) Opportunities for landscape scale restoration is related to the purpose of the amendment because reducing deer winter range cover on 388 acres will promote establishment of vegetation structure, species, and composition similar to historic and predicted future conditions.

219.9(a)(1) Ecosystem integrity is related to the purpose of the amendment because reducing deer winter range cover on 388 acres is intended to promote maintenance and/or restoration of historic and predicted future ecosystem structure, function, and composition;

219.9(a)(2) Ecosystem diversity is related to the purpose of the amendment because reducing deer winter range cover on 388 acres is intended to promote maintenance and/or restoration of a diversity of ecosystem and habitat types in the project area;

219.11(c) Timber harvest for purposes other than timber production is related to the purpose of the amendment because reducing deer winter range cover on 388 acres will be accomplished in part by commercial thinning to create forest vegetation structure, overstory and understory species composition, and spatial patterns that are more similar to historic and predicted future conditions, and more likely to experience disturbances (including wildfire and insects) in a manner similar to historical and future predicted disturbance patterns. Timber harvest as allowed by this amendment will contribute toward habitat diversity for terrestrial wildlife and tree species. Some timber harvest will remove conifers that are out-competing aspen in existing aspen stands. Some timber harvest will remove trees in riparian zones to promote production of hardwood vegetation to increase beaver forage, which in turn increases successful re-establishment of beaver through current beaver reintroduction program conducted by Washington State Department of Fish and Wildlife.

The draft Decision Notice identified several substantive provisions that would be adversely affected by the proposed amendment. Upon further review, I find that these adverse effects do not rise to a

substantial level, nor would the proposed amendment substantially lessen the protections for a specific resource or use per 36CFR 219.13(b)(5)(ii)(A). Therefore, substantive provisions previously identified as adversely affected do not apply to this project. Adverse effects described below in 219.9(b)(1) are in the context of ESA-listed species and are included for consistency with the Biological Assessment. I have examined the effects of the amendment and I have concluded that effects described below are not contrary to any of the substantive requirements in sections 219.8 through 219.11 as follows:

219.8(a)(1)(ii) Contributions of the plan area to ecological conditions within the broader landscape influenced by the plan area. Thinning will have beneficial, short- to long-term, minor to moderate effects on ecological conditions within the broader landscape because it will open up the forest canopy and result in an increase in forage available to mule deer and other animals, which will contribute to the sustainability of migratory mule deer populations present in the greater Methow Valley (Final EA at p. 227).

219.8 (a)(1)(iv) System drivers such as wildland fire, invasive species, and climate change, and the ability of terrestrial and aquatic ecosystems in the plan area to adapt to change; (v) Wildland fire and opportunities to restore fire-adapted ecosystems; and (vi) Opportunities for landscape scale restoration. Thinning will have beneficial, short to long-term, minor to moderate effect on wildland fire, climate change, and the ability of terrestrial and aquatic ecosystems to adapt to change because it will create forest vegetation structure, overstory and understory species composition, and spatial patterns that are more likely to experience low-severity fire behavior and are more similar to historical and predicted future conditions. These conditions would be less vulnerable to effects of climate change such as increased warming and drying during the summer months (Final EA at p. 135, 172-173).

219.8(a)(2)(i) Air quality. Thinning will contribute to a beneficial, long-term, negligible to moderate effect on air quality because thinning and associated prescribed fire treatments will reduce the likelihood of high fire severity during wildfires, resulting in less vegetation consumed and less particulate matter produced (Final EA at p. 316-317).

219.8(a)(2)(ii) Soils and soil productivity. Thinning will create beneficial, long-term, moderate effects on soil productivity because it will leave a variety of organic matter on the site that will help maintain site productivity, protect the soil surface from raindrop impact, dissipate energy of overland flow, bind soil particles together, and dampen soil temperature extremes and daily fluxes. (Final at p. 100-101).

219.8(a)(2)(iii) Water quality. Thinning will contribute to beneficial, short to long-term, minor to moderate effects on water quality because thinning and associated prescribed fire treatments will develop forest vegetation structure, overstory and understory species composition, and spatial patterns that are more likely to withstand insect and disease outbreaks and will be more likely to experience low-severity wildfire behavior and effects with reduced impacts to water quality (Final EA at p. 81).

219.8(a)(3) Riparian areas. Thinning as provided by the amendment would have beneficial, short- to long-term, minor to moderate effects on streams because thinning in some areas will promote hardwoods, providing more suitable beaver food and habitat and increasing opportunities for

successful beaver re-introduction as conducted by Washington State Department of Fish and Wildlife (WDFW). Successful beaver reintroduction will promote water storage and longer stream flow (Final EA at p. 82).

219.8(b)(1) Social, cultural, and economic conditions. Thinning as provided by the amendment will have beneficial, short-term, minor to moderate effects on social conditions by reducing fire hazards in the wildland urban interface (WUI) and along major access routes in the project area (FS Roads 43 and 4340). These actions will reduce risk from wildfires and provide more suppression opportunities, contributing to increased sustainability of local communities in the WUI (Final EA at p. 173). Thinning will also contribute to a beneficial, short-term, minor effect on economic conditions because thinning and prescribed burning will provide employment opportunities and merchantable timber for processing at regional mills (Final EA at p. 323).

219.8(b)(3) Multiple uses that contribute to local, regional, and national economies in a sustainable manner. Thinning as provided by the amendment will have a beneficial, long-term, moderate effect on range because thinning in deer winter range cover will promote more open stand structure and increase in forage that will be available as transitory range (Final EA at p. 274).Thinning will also contribute to a beneficial, short-term, minor effect on multiple uses that contribute to local, regional, and national economies in a sustainable manner because, as mentioned above, thinning will provide employment opportunities and merchantable timber for processing at regional mills (Final EA at p. 323).

219.9(a)(1) Ecosystem integrity. Thinning as provided by the amendment will have a beneficial, short- to long-term, minor to moderate effect on terrestrial ecosystems because thinning and associated prescribe fire treatments in deer winter range cover will contribute to the sustainability of thermal cover and other vegetation on the landscape by promoting low-intensity wildfire behavior with less canopy fire. Treatments will maintain and restore stand structure, composition, and arrangement that will be less susceptible to stand-replacing wildfires that could extensively damage and reduce vegetation (including thermal cover) on the landscape (Final EA at p. 227).

Thinning will also have a beneficial, short to long-term, minor to moderate effect on terrestrial ecosystems by creating forest vegetation structure, overstory and understory species composition, and spatial patterns similar to historic conditions. In doing so, thinning will help maintain or restore ecosystem characteristics similar to historical conditions that are more conducive to low-severity wildfire and less vulnerable to insect and disease outbreak, which will help maintain the desired ecosystem on the landscape to maintain the sustainability of the landscape (Final EA at p. 135-136).

219.9(a)(2)(i) Key characteristics associated with terrestrial and aquatic ecosystem types. Thinning will have a beneficial, long-term, minor to moderate effects on water quality, a key characteristic associated with aquatic ecosystems, because thinning and associated prescribed fire treatments will develop forest vegetation structure, overstory and understory species composition, and spatial patterns that are more likely to withstand insect and disease outbreaks and will be more likely to experience low-severity wildfire behavior and effects with reduced impacts to water quality. (Final EA at p. 81-82).

Thinning will have beneficial, long-term, moderate effects on key characteristics associated with terrestrial ecosystem types by increasing community heterogeneity and species diversity (Final EA at p. 254).

Thinning will have a beneficial, long-term, minor effect on snag habitat as thinning will contribute to acceleration of growth of large trees which will become large snags. Thinning will also have a beneficial, short-term, minor effect on forage available for mule deer by opening up the tree canopy and allowing more sunlight and precipitation to reach the ground, resulting in more vegetation that provides more browse for deer. Increases in forage levels contribute to greater chance for winter survival. With respect to habitat connectivity, thinning will cause forested stands to be more open as a result of thinning, resulting in an adverse, short- to medium-term, minor effect on connectivity for species that prefer more closed habitat, and a beneficial, short- to medium-term, minor effect on connectivity for species that prefer more open habitat. (Final EA at p. 228).

219.9(a)(2)(iii) Diversity of native tree species. Thinning will have a beneficial, long-term, moderate effect on the diversity of native tree species because it will promote aspen health and vigor by removing competing conifer encroachment that suppresses aspen sprouts and overtops and kills the aspen overstory though vegetative competition for lights and soil resources (Shepperd et al., 2001a; Jones et al., 2005) (Final EA at p. 255).

219.9(b)(1) Additional species-specific plan components. The following Threatened or Endangered species are present and/or have habitat in the project area. The effects described apply only to the thinning that will occur as a result of the amendment.

Wolves and grizzly bear: Thinning will cause an adverse, short-term, negligible effect because thinning may temporarily displace prey species (deer) and reduce cover for prey species in some areas, although adequate cover will remain. Thinning will not degrade habitat and will cause a beneficial, short- to long-term, minor effect to grizzly bears because it will open up forested stands and encourage growth of forage for prey species (deer) (Final EA at p. 228).

Northern spotted owl: Of the nesting, roosting, and foraging (NRF) habitat that lies within deer winter range cover, 23 acres will be slightly degraded, but not downgraded by commercial thinning as allowed by the amendment. Thinning will cause an adverse, short- to medium-term, minor effects on suitable NRF habitat because thinning as allowed by the amendment will degrade habitat by reducing canopy cover. Thinning will cause beneficial, long-term, moderate effects for NRF because thinning and associated prescribed fire activities will develop forest vegetation structure, overstory and understory species composition, and spatial patterns that are more likely to withstand insect and disease outbreaks and will be more likely to experience low-severity wildfire behavior and effects with reduced impacts to these species and their habitat. In addition, thinning will promote habitat with large trees suitable for spotted owl. (Final EA at p. 228-229).

Designated Critical Habitat for Lynx: Thinning will create a beneficial, short to medium-term, minor effect on critical habitat for lynx because thinning will reduce forested stand density and encourage growth of forage for prey species (snowshoe hare) (Final EA at p. 229).

Spring Chinook, summer steelhead, and bull trout: Thinning will have an adverse, short-term, negligible effect on habitat for these species because log haul traffic associated with commercial thinning will cross streams on roads and contribute some sediment to streams. Thinning will have beneficial, short- to long-term, minor to moderate effects on habitat used by these species because thinning and associated prescribed fire treatments will develop forest vegetation structure, overstory and understory species composition, and spatial patterns that are more likely to withstand insect and disease outbreaks and will be more likely to experience low-severity wildfire behavior and effects with reduced impacts to these habitats (Final EA at p.82).

Finding of No Significant Impact

As the responsible official, I have evaluated the effects of the project relative to the definition of significance established by the CEQ Regulations (40 CFR 1508.13). I have reviewed and considered the Environmental Assessment and documentation included in the project record, and I have determined that the Mission Restoration Project, Modified Alternative 2, is not a major federal action, individually or cumulatively, that will have a significant effect on the quality of the human environment. As a result, no environmental impact statement (EIS) is needed. This determination is based on analysis of the context and intensity of the environmental effects, including the following factors, which are not in any particular order.

Context

The context of the environmental effects is based on the environmental analysis in this EA. This project is a site-specific action that by itself does not have international, national, region-wide, or statewide importance. The discussion of the Intensity Criteria that follows applies to the intended action and is within the context of local importance in the area associated with the Mission Restoration Project area.

Intensity

Intensity is a measure of the severity, extent, or quantity of effects, and is based on information from the effects analysis in this EA and the references in the project record. The effects of this project have been appropriately and thoroughly considered with an analysis that is responsive to concerns and issues raised by the public. The agency has taken a hard look at the environmental effects using relevant scientific information and knowledge of site-specific conditions gained from field visits. My finding of no significant impact is based on the context of the project and intensity of effects using the ten factors identified in 40 CFR 1508.27(b).

The following discussion is organized around the 10 Intensity Factors described in NEPA regulations (40 CFR 1508.27).

Intensity Factor 1. *Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.*

A thorough effects analysis (direct, indirect, and cumulative) is in the EA in Chapter 3 (EA pages 41 – 332), including Figure 11, Comparison of Alternatives by Resource Indicators, (EA pages 30 – 40), in the individual Resource Reports, and in the Biological Assessment for Fish and Wildlife species (in the project files). The beneficial effects of the action do not bias my finding of no significant environmental effects, nor do beneficial effects mask adverse effects.

Intensity Factor 2. *The degree to which the proposed action affects public health or safety.*

There are limited health and safety hazards to Forest Service employees, permittees, and the general public (see Section 3.15.6, Public Health and Safety EA page 326). None are unusual or unique. Recreationists, home owners, hikers, and permittees could encounter logging traffic or be exposed to smoke during burning.

In accordance with the Forest Hazardous Tree Policy, some snags will be felled to meet safety concerns. Assessment and removal criteria will be based upon the *Field Guide for Danger Tree Identification and Response (Toupin and Barger 2008).* Project design features, best management practices, mitigation and monitoring measures (Appendix D, EA pages 374 - 407) also address public health and safety. Altering the fuel profile will not stop fires, but its intent is to allow fire suppression forces a higher probability of successfully attacking a wildland fire, thus improving firefighter and public safety (Section 3.6, Fire/Fuels, EA pages 137 – 177), and the Fire/Fuels Report in project files). Compliance with the Clean Air Act and Washington State Smoke Implementation Plan (EA pages 316, and 326) and the Clean Water Act (EA pages 326 and 406 and in the Water Resources Report in project files) also ensure that there will be minimal effects on public health. None of the drainages within the project area are listed on the State's 2008 and 2012 Water Quality Assessment given the requirements of Sections 303(d) and 305(b) of the Clean Water Act. There are no locations within the Twisp River Watershed (HUC 10) with a 303(d) Category 5 listing indicating impaired water quality. One 303(d) listing exists in the Lower Methow River downstream of the project area. The Methow River near the confluence with the Columbia River is listed as impaired for pH and water temperature. Washington State Water quality parameters specific to aquatic habitat that are most susceptible to change by thinning and prescribed fire treatments are turbidity, fine sediment, and temperature. This project will not impact these parameters where the sampling locations exist. The nearest 303 (d) listed water is over 15 miles downstream of the project boundary.

Intensity Factor 3. *Unique characteristics of the geographic area such as the proximity to historical or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

No prime forest land, farm land, or rangelands (Section 3.15.3, EA page 324, and project files), wild and scenic rivers (Section 3.15.10, EA page 329, and project files), Congressionally-designated Wilderness, ecologically critical areas, or National Recreational Areas lie within the analysis area (Section 3.15.9, EA page 327, and project files). Effects to the Sawtooth Inventoried Roadless Area and substantial unroaded areas are discussed (Section 3.15.9, EA page 327 and project files). There will be no significant effects on the unique characteristics of the area. Project design features, best management practices, mitigations, and monitoring measures (Appendix D, EA pages 374 - 407) minimize possible effects to the scenic character, historic or cultural resources, and wetlands. Project design features, best management practices, and mitigation measures, listed in Appendix D (EA pages 374 - 407), will limit or eliminate damage, or assure rehabilitation to the soil, water, and aquatic/riparian resources.

Intensity Factor 4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

The nature of potential effects on the human environment from the project actions is well established and not likely to be highly controversial. The Forest Service has used best available science (The Okanogan-Wenatchee National Forest Restoration Strategy) in guiding and assessing (the Ecosystem Management Decision Support tool) the effects of this project. Written comments from 111 individuals or organizations were received during the scoping and preliminary EA comment periods (Chapter 4, EA pages 333 - 336). I have addressed resource related comments and these comments did not satisfy the threshold for preparation of an Environmental Impact Statement (EIS).

Intensity Factor 5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*

The Forest Service has considerable experience with implementing the types of actions proposed. The effects analysis as well as science and monitoring shows the effects are not uncertain. Effects do not involve unique or unknown risk.

Intensity Factor 6. *The degree to which the action may establish precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

My decision to implement the actions included in the Mission Restoration Project, Modified Alternative 2, does not establish a precedent for future actions or represent a decision in principle about a future consideration. The project consists of site-specific resource management activities. Any additional future resource projects within or adjacent to the project will require a separate environmental analysis at that time. I have made this decision based on the overall consistency of the proposed activities with the amended Okanogan National Forest Plan Standards and Guidelines.

Intensity Factor 7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.*

Each resource effects analysis contained in the Mission Restoration Project Environmental Assessment and individual Resource Reports (in the project file) discuss cumulative effects; none were found to be significant. Past actions were considered as part of the existing condition for the analysis described in the Mission Restoration Project EA. Past, Present, and Reasonably Foreseeable Future Actions are listed on EA pages 41 - 43 and were considered for each resource, as appropriate. To clarify the cumulative effects of this project's activities and grazing on sediment delivery for the final Decision Notice, the project hydrologist described that there will be isolated, short and long- term, adverse, minor cumulative effects from grazing upon sediment delivery to streams. Trailing, compaction, pedestalling and lounging areas create bare soil in isolated areas throughout the project area and could create small zones of sediment delivery to streams.

The effects of implementing Modified Alternative 2 will not be significant, individually or cumulatively, when considered with the effects of other past and reasonably foreseeable future actions. See the cumulative effects analysis for each resource area in the EA in Chapter 3 and in the respective resource reports in project files.

Intensity Factor 8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.*

I have determined that the actions do not adversely affect or cause loss or destruction of significant scientific, cultural, or historical resources. All applicable Land and Resource Management Plan Standards and Guidelines have been met through the inventory and evaluation of the historic properties as required under the National Historic Preservation Act. A heritage resources inventory was conducted as part of the compliance process of Section 106 of that Act (Section 3.15.11, Heritage Resources, EA pages 327 and 328), and on page 9, above. and in the Cultural Resource Reports in project files). Via Letter dated September 29, 2016, the State Historic Preservation Officer (SHPO) concurred with the Forest Heritage Program Manager determination of "No Historic Properties Affected" for heritage resources. Project activities will avoid cultural resource sites (Appendix D). No scientific resources are located within the project area.

Intensity Factor 9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

The effects on endangered or threatened species and their habitats are discussed in the Biological Assessments with results summarized in the EA on pages 248, 254 for wildlife; pages 52, 53, and 73 for aquatic species; and pages 248, 254 for plant species. Additional information is available in the Wildlife, Aquatic Resources, and Botany specialist reports in the project record.

The project analysis area contains habitat for fish species listed under the Endangered Species Act (ESA), Regional Forester's Sensitive Species, Management Indicator Species (MIS), and species for which Essential Fish Habitat (EFH) has been designated under the Magnuson-Stevens Fishery Conservation and Management Act. The draft Decision Notice described the Forest Service determination of impacts as "likely to adversely affect summer steelhead and bull trout". To clarify further, the Biological Assessment (BA) for this project determined that some treatments covered by the ARBO II programmatic BO (Table 1) may create short-term adverse impacts that result in a determination of "May Affect, Likely to Adversely Affect" fish or their habitat. USFWS and NOAA-NMFS agreed with this determination by their support of using the ARBO II programmatic BO as the consultation method for these treatments. The BA determined that non-ARBO II treatments will result in a determination of "May Affect, Not Likely to Adversely Affect" Upper Columbia River (UCR) spring-run Chinook salmon, UCR steelhead, and bull trout, and their critical habitat.

In addition, the determination of "May Affect, Not Likely to Adversely Affect" applies to all project activities (ARBO II and non-ARBO II) regarding northern spotted owl and its critical habitat, gray wolf, grizzly bear, and Canada lynx and its critical habitat.

Consultation with NOAA-NMFS and USFWS occurred during spring 2018. Concurrence with the above determinations was received on April 17, 2018 and April 30, 2018 respectively.

The project is in compliance with FSM 2620 in that a Biological Assessment was prepared and the project is properly designed and mitigated to maintain viable populations of Sensitive plant species, and does not contribute to or trend these species toward being listed as Threatened or Endangered. There is no effect on threatened or endangered plant.

Intensity Factor 10. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

The actions will not threaten any violation of Federal, State, or local law or requirements imposed for the protection of the environment. Further discussion about compliance with laws and regulations is identified below under Findings Required by Other Laws and Regulations and in individual resource sections of Chapter 3, in individual resource reports in the project file, and Appendix G, Regulatory Framework (EA pages 448 – 464).

Conclusion

After considering the environmental effects described in the Mission Restoration Project Environmental Assessment, specialists reports, and background information contained in the administrative record, I have determined that Modified Alternative 2 will not have significant effects on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus an environmental impact statement (EIS) will not be prepared.

Findings Required by Other Laws and Regulations

Okanogan National Forest Land and Resource Management Plan as Amended

This project was prepared consistent with the requirements of the National Environmental Policy Act (NEPA), its implementing regulations, and the Forest Service National Environmental Policy Act Regulations (36 CFR 220) and Handbook (FSH 1909.15). This decision is consistent with the National Forest Management Act (NFMA).

The project was designed to be consistent with the Record of Decision for the Final EIS for the Okanogan National Forest Land and Resource Management Plan and its amendments, Forest-wide and Management

Area Standards and Guidelines, and management area specific direction (with the exception of the Forest Plan amendments for winter thermal cover) [summarized in the Resource sections of Chapter 3 and in Appendix G, Regulatory Framework (EA pages 448 – 464)]. One non-significant and project specific Forest Plan amendment is necessary in order to accomplish the Proposed Action. This is described above on page 10, in the Environmental Assessment in Chapter 2 (EA pages 24 – 29); throughout Chapter 3 as part of the Resource Consistency statement for each appropriate resource including Sections 3.3.5, 3.4.5. 3.5.5, 3.6.5, etc.; and in Section 3.16, Substantive Provisions Affected by Proposed Amendment (EA pages 328 – 332). The Forest Service uses design elements in the planning and implementation of land management activities. The application of these elements begins during the planning and design phases of a project.

Only minor disturbance effects are anticipated to Management Indicator Species (MIS) and therefore the project does not reduce population viability for any of them (details in Chapter 3, Sections 3.3, 3.7, and 3.9; and in the Wildlife Resources Report, the Water Resources Report, the Fish and Wildlife Biological Assessment, and the Biological Evaluation for plants in project files).

Both action alternatives meet the Okanogan National Forest Land and Resource Management Plan in that implementation will not result in openings over 60 acres in size and that all openings two acres in size or larger will be regenerated. Regeneration will be monitored by taking stocking surveys and certified according to NFMA standards. Additional details are contained in the Vegetation Report and in Appendix A, Proposed Thinning and Prescribed Fire Treatments (EA pages 337-358).

No Forest Plan Old Growth within the Mission Project boundary is proposed to be treated.

This project conforms to the Okanogan LRMP, as amended by the Aquatic Conservation Strategy. The project is consistent with Riparian Management Objectives, Standards and Guidelines of this plan (EA pages 7, 8, 80-86, 173, 267 and 457).

Proposed reductions in effective ground cover in riparian reserves will be avoided, minimized, and mitigated by project design criterion to limit bare soil creation near surface water areas. Thinning and prescribed fire activities will be designed to maintain effective ground cover and utilize existing roads, skid trails, and landings to minimize the creation of more disturbed soil. Design criteria and objectives will provide for low to moderate fire behavior, resulting in a low potential to generate short-term fine sediment. Thinning and prescribed fire treatments will not likely generate measurable increases in sediment yield due to buffers and other design criterion that provide for retention of ground cover and vegetation in riparian reserves during treatments (Appendix D). Road decommissioning and hydrologic closures are included in the project. Fifteen new culvert upgrades in non-fish-bearing streams and 8 culverts that are fish barriers in fish-bearing streams will be replaced. All will be proposed to pass the 100-year design storm event, including associated debris, thereby improving hydrologic function and improving riparian and stream habitat. It is also proposed to restore deficient levels of coarse woody debris (CWD) in up to 8.2 miles in fish-bearing stream channels. Rock armoring is proposed at up to 33 stream crossings which will reduce sediment delivery to streams.

Existing fine sediment levels in the project area streams appears to be functioning at risk. Mitigation measures such as isolating culvert replacement work sites, decreasing road miles within 300' of streams, removing 6 road crossings of streams, rock armoring of up to 33 road/stream crossings, and repair/replacement of up to 23 culverts will minimize short-term and long-term sediment impacts. Fine sediment levels are expected to improve, once restoration work in riparian habitat is completed.

Implementation will comply with Land and Resource Management Plan direction to limit acres of habitat damaged by wildfire, retain and enhance key wildlife habitat, reduce the risk of large-scale wildfire while maintaining site productivity, and placing fire tolerant stands on appropriate maintenance schedules (EA pages 137- 177), with more detail in the Fire/Fuels Report in the project file.

The proposed action meets the Okanogan LRMP for range resources due to increasing and maintaining transitory range for the short-term (EA, pages 6, 252, 264-267, 273-275, 277), with more detail in the Range Resource Report in the project file.

The proposed action will meet a High scenic integrity objective and the appropriate visual quality objectives for each Management Area (EA pages 302 -307), with more detail in the Recreation and Scenic Report in the project file and in Appendix D, (EA pages 374-407).

No short-term loss of recreational opportunities are anticipated (EA pages 302 – 307), with more detail in the Recreation and Scenic Resources Report in the project file.

The proposed action will create short-term road closures to snowmobile use on NFS roads, including roads #430000 and 4340000, during harvest activities. No long-term loss of recreational opportunities are anticipated (EA pages 302-307) since other, nearby areas open to snowmobile use are available, with more detail in the Recreation and Scenic Resources Report in the project file.

The actions are consistent with the Okanogan National Forest Integrated Weed Management Environmental Assessments (1997, 2000, 2017) and the requirements of the 2005 Pacific Northwest Regional Invasive Plant Program, Record of Decision. Management objectives to protect ecosystems from the impacts of invasive plants and to minimize the creation of conditions that favor invasive plant introduction, establishment, and spread will be met (EA pages 284-296), and Appendix D (EA pages 375-379, 386, 392, 393, 396), with additional detail in the Invasive Species Resource Report in project files.

Migratory Bird Treaty Act and Executive Order 13186

The project has no long term negative effects on migratory landbirds (EA pages 215, 224, 225) with more detail in the Wildlife Resources Report in project files).

Endangered Species Act

The project "may affect, likely to adversely affect" Spring Chinook, Upper Columbia Steelhead and Bull Trout and for wildlife determinations of "may affect, not likely to adversely affect" for grizzly bear, Northern Spotted Owl, Canada lynx and their critical habitat (EA pages 73, 189, 190, and 200-210); (Wildlife Resources Report, and the Fish and Wildlife Biological Assessment). These determinations have been forwarded to the U.S. Fish & Wildlife Service, with more details in the Wildlife and Water Resource Reports and the Fish and Wildlife Biological Assessment in the project record.

The project is "not likely to jeopardize the continued existence" of the Wolverine. However, in the event that Wolverine becomes listed prior to completion of the project, the project "may affect, not likely to adversely affect" Wolverine.

The project area contains no threatened or endangered plant species. Sensitive plant species (*Botrychium crenulatum*) will be protected with project design features and mitigation measures (Section 3.9, Botany [EA pages 249-254] and in the Botany Resource Report in project files).

Magnuson – Stevens Fishery Conservation and Management Act

The project analysis area contains habitat for fish species listed under the ESA, Regional Forester's Sensitive Species, Management Indicator Species (MIS), and species for which Essential Fish Habitat (EFH) has been designated under the Magnuson-Stevens Fishery Conservation and Management Act (EA pages 52, 53, and 73-74) under the 1996 amendment to the Magnuson-Stevens Fishery Conservation and Management Act.

Clean Air Act

Actions will meet Air Quality Standards as set by the Clean Air Act and regulated through the Washington State Smoke Implementation Plan (EA pages, 312, 317, 326).

Clean Water Act and Safe Drinking Water Act

Compliance with the Clean Water Act (EA pages 326, 406 and in the Water Resources Report in project files) also ensure that there will be minimal effects on public health. None of the drainages within the project area are listed on the State's 2008 and 2012 Water Quality Assessment given the requirements of Sections 303(d) and 305(b) of the Clean Water Act. There are no locations within the Twisp River Watershed (HUC 10) with a 303(d) Category 5 listing indicating impaired water quality. One 303(d) listing exists in the Lower Methow River downstream of the project area. The Methow River near the confluence with the Columbia River is listed as impaired for pH and water temperature. Washington State Water quality parameters specific to aquatic habitat that are most susceptible to change by thinning and prescribed fire treatments are turbidity, fine sediment, and temperature. This project will not impact these parameters where the sampling locations exist. The nearest 303 (d) listed water is over 15 miles downstream of the project boundary.

Floodplain Management (E.O. 11988), Protection of Wetlands (E.O. 11990), Municipal Watersheds

The actions will not affect the functional value of any floodplain as defined by Executive Order 11988 and will not have negative impacts on wetlands as defined by Executive Order 11990. Proposed reductions in effective groundcover in RHCAs have been avoided, minimized, and mitigated by project design to limit bare soil creation in floodplain areas. Treatments will occur within RHCAs (incidental harvest and underburning, etc.) and effects are described in the Water Resources section of the EA. As no occupancy is proposed, none of the proposed treatments will result in an adverse impact from any occupancy of wetlands. Any change in use within wetlands will improve over the existing condition. The project area is not a municipal watershed. Refer to Section 3.15 in the EA.

National Historic Preservation Act

The Forest Service program for compliance with the National Historic Preservation Act includes locating, inventorying, and nominating all cultural sites that may be directly or indirectly affected by scheduled activities. Government-to-Government consultation letters were sent to both governments on April 20, 2016. Cultural Resource surveys took place in the project area during the 2016 field season. Project activities will avoid cultural resource sites or isolated occurrences. Via Letter dated September 29, 2016, the State Historic Preservation Officer (SHPO) concurred with the Forest Heritage Program Manager determination of "No Historic Properties Affected" for heritage resources (Section 3.15.11).

Alaska Native Religious or Cultural Sites

Government to government consultation was completed with The Confederated Tribes and Bands of the Yakama Nation and the Confederated Tribes of the Colville Reservation in April 2016. Neither tribe raised any concerns regarding cultural resource surveys for the project.

Social Groups, Civil Rights, Environmental Justice, and Executive Order 12898

None of the activities proposed will have disproportionate effects on low income or minority populations. None of the Alternatives will negatively affect women, American Indians, other minorities, or consumer groups. Civil Rights will not be affected by any of the Alternatives (Section 3.15.1, EA pages 302 and 303.)

The project includes both contracted and Forest Service employee accomplished work. The U.S. Department of Agriculture prohibits discrimination in its employment practices based on race, color, national origin, gender, religion, age, disability, political beliefs, and martial or familial status.

Administrative Review or Objection Opportunities

On March 27, 2013, a final rule revising 36 CFR Part 218 was published in the Federal Register Volume 78, No. 59. The new rule replaces the previous appeal rules defined in 36 CFR 215, and expands the use of the pre-decisional objection process. The new rule provides the public an opportunity to comment and express concerns on projects before decisions are made, rather than after.

The Mission Restoration Project is a non-HFRA project that was subject to subparts A and B of 36 CFR 218 regulations. This decision was subject to administrative review (objection) pursuant to 36 CFR Part 218.

The draft Decision Notice and Final EA were made available for a 45-day objection period under 36 CFR 218 subpart A through a legal notice in the *Wenatchee World* on March 15, 2018. The subsequent objection resolution period ended on July 16, 2018.

Implementation

Implementation may begin as early as practical upon signature of this Decision Notice and after the public is informed of my decision in accordance with 36 CFR 220.7(c).

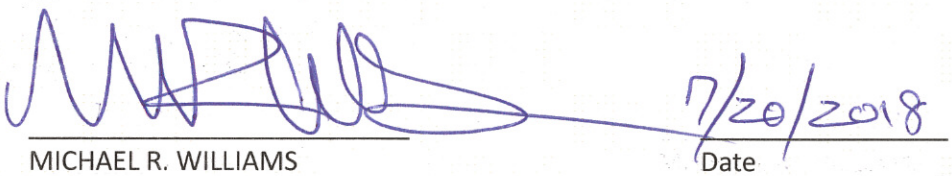
Contact Information

For additional information concerning this decision, contact Paul Nash, Methow Valley Ranger District, 24 West Chewuch Road, Winthrop WA 98862, phone (509)-996-4008, or fax (509) 996-2208.

The Environmental Assessment and supporting documents are available for inspection online at:

https://www.fs.usda.gov/project/?project=49201

The Environmental Assessment and supporting documents are available for inspection during regular business hours (Monday-Friday, 8:00 a.m. to 4:30 p.m.) at the Methow Valley Ranger District office (please call ahead to schedule an appointment).



MICHAEL R. WILLIAMS
Forest Supervisor
Okanogan-Wenatchee National Forest

Date

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